

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:742091 CAPLUS Full-text

DN 133:305587

TI Methods and compositions using bifunctional hsp-binding derivatives for degradation and/or inhibition of HER-family tyrosine kinases and treatment of cancer

IN Rosen, Neal; Kuduk, Scott D.; Danishefsky, Samuel J.; Zheng, Furzhong F.; Sepp-Lorenzino, Laura; Ouerfelli, Ouathek

PA Sloan-Kettering Institute for Cancer Research, USA

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

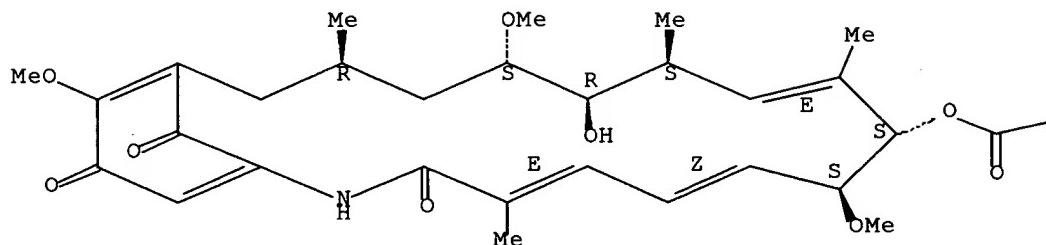
LA English

FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE         |
|------|--|------|----------|-----------------|--------------|
| PI   | WO 2000061578  | A1   | 20001019 | WO 2000-US9512  | 20000407 <-- |
|      | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  |      |          |                 |              |
|      | RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG   |      |          |                 |              |
|      | CA 2370007   | AA   | 20001019 | CA 2000-2370007 | 20000407     |
|      | EP 1169319   | A1   | 20020109 | EP 2000-921985  | 20000407     |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO  |      |          |                 |              |
|      | AU 769235  | B2   | 20040122 | AU 2000-42235   | 20000407     |
|      | US 2002045570  | A1   | 20020418 | US 2001-960665  | 20010921     |
| PRAI | US 1999-128593P  | P    | 19990409 |                 |              |
|      | WO 2000-US9512   | W    | 20000407 |                 |              |
| AB   | Bifunctional mols. comprising two hsp-binding moieties which bind to hsp90 in the pocket to which ansamycin antibiotics bind connected via a linker are effective for inducing the degradation and/or inhibition of HER-family tyrosine kinases. For example, a compound of two geldanamycin moieties joined by a four-carbon linker provides selective degradation of HER-family tyrosine kinases, without substantially affecting other kinases. These compds. can be used for treatment of HER-pos. cancers with reduced toxicity, since these compds. potently kill cancer cells but affect fewer proteins than geldanamycin. Compound preparation is described. |      |          |                 |              |
| IT   | <b>80449-02-1</b> , Tyrosine kinase  |      |          |                 |              |
|      | RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  |      |          |                 |              |
|      | (HER-family; bifunctional hsp-binding derivative for degradation and/or inhibition of HER-family tyrosine kinase and cancer treatment)   |      |          |                 |              |
| RN   | 80449-02-1 CAPLUS  |      |          |                 |              |
| CN   | Kinase (phosphorylating), protein (tyrosine) (9CI) (CA INDEX NAME)   |      |          |                 |              |
|      | *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***   |      |          |                 |              |
| IT   | <b>30562-34-6</b> , Geldanamycin   |      |          |                 |              |
|      | RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)   |      |          |                 |              |
|      | (bifunctional hsp-binding derivative for degradation and/or inhibition of HER-family tyrosine kinase and cancer treatment)   |      |          |                 |              |
| RN   | 30562-34-6 CAPLUS  |      |          |                 |              |
| CN   | Geldanamycin (9CI) (CA INDEX NAME)   |      |          |                 |              |

Absolute stereochemistry. Rotation (+).  
Double bond geometry as described by E or Z.

PAGE 1-A



PAGE 1-B

—NH2

IT 71975-67-2P 280145-12-2P 280145-13-3P  
280145-14-4P 280145-15-5P 280145-16-6P  
280145-17-7P 280145-18-8P 301643-24-3P  
301643-25-4P 301643-26-5P 301643-27-6P  
301643-28-7P 301643-29-8P

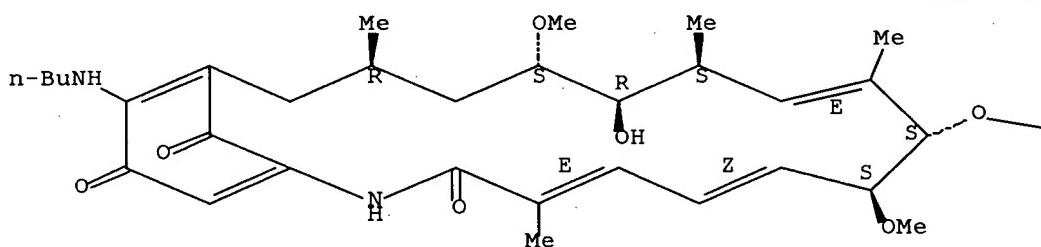
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(bifunctional hsp-binding derivative for degradation and/or inhibition of HER-family tyrosine kinase and cancer treatment)

RN 71975-67-2 CAPLUS

CN Geldanamycin, 17-(butylamino)-17-demethoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as described by E or Z.

PAGE 1-A

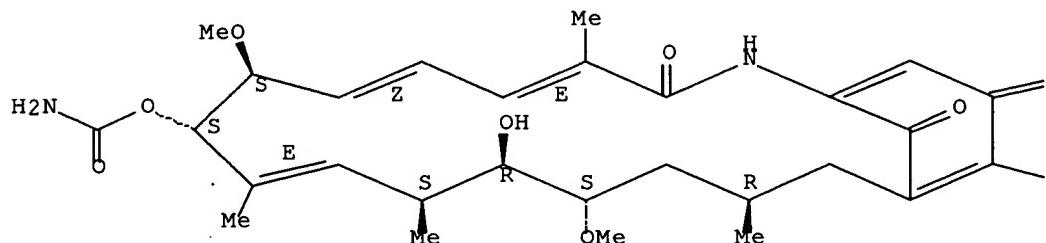


PAGE 1-B

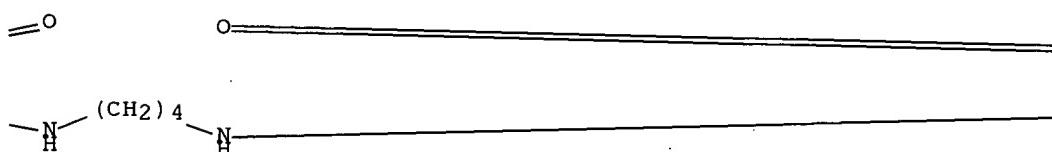
RN 280145-12-2 CAPLUS  
CN Geldanamycin, 17,17'-(1,4-butanediylidimino)bis[17-demethoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as described by E or Z.

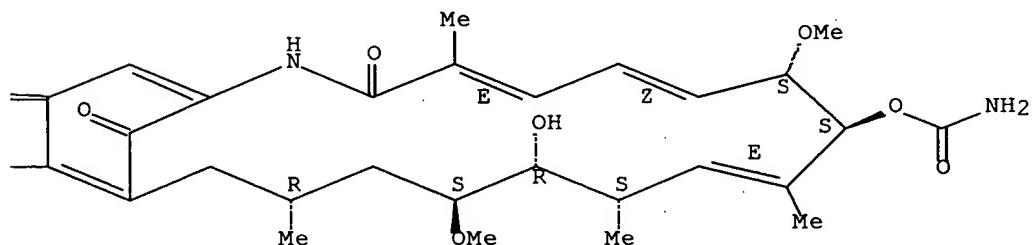
PAGE 1-A



PAGE 1-B



PAGE 1-C



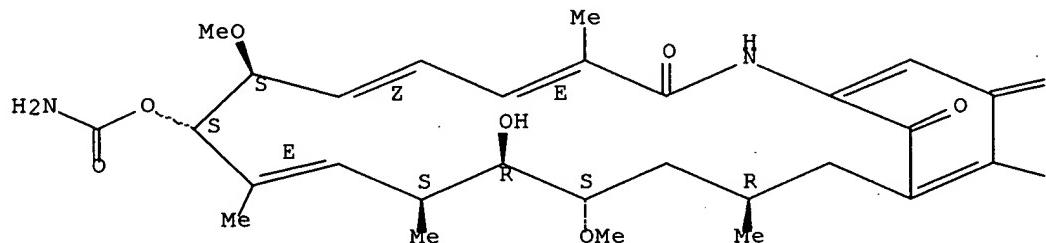
RN 280145-13-3 CAPLUS

CN Geldanamycin, 17,17'-(1,7-heptanediyldiimino)bis[17-demethoxy- (9CI) (CA INDEX NAME)

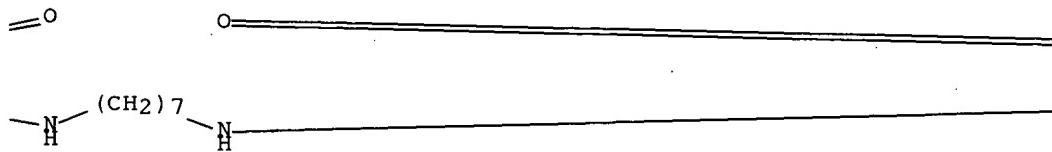
Absolute stereochemistry.

Double bond geometry as described by E or Z.

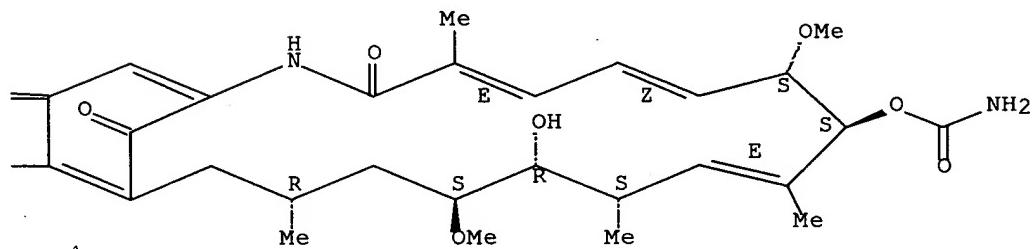
PAGE 1-A



PAGE 1-B



PAGE 1-C



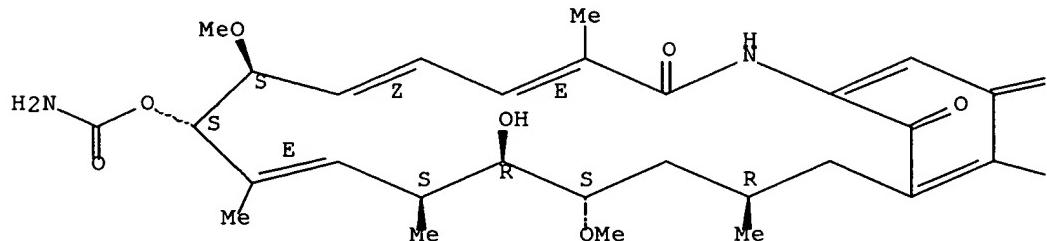
RN 280145-14-4 CAPLUS

CN Geldanamycin, 17,17'-(1,9-nonanediyldiimino)bis[17-demethoxy- (9CI) (CA INDEX NAME)

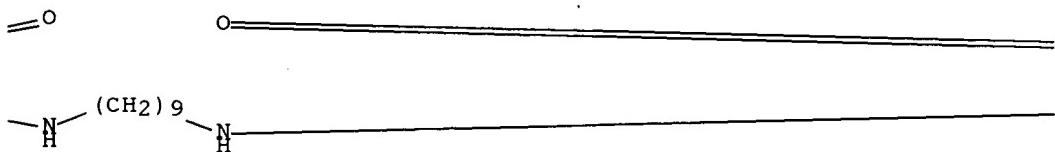
Absolute stereochemistry.

Double bond geometry as described by E or Z.

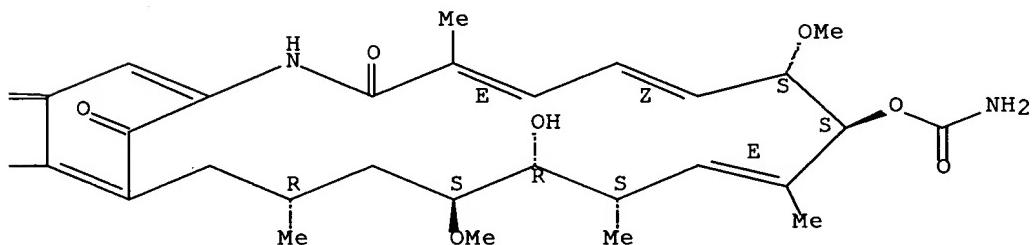
PAGE 1-A



PAGE 1-B



PAGE 1-C



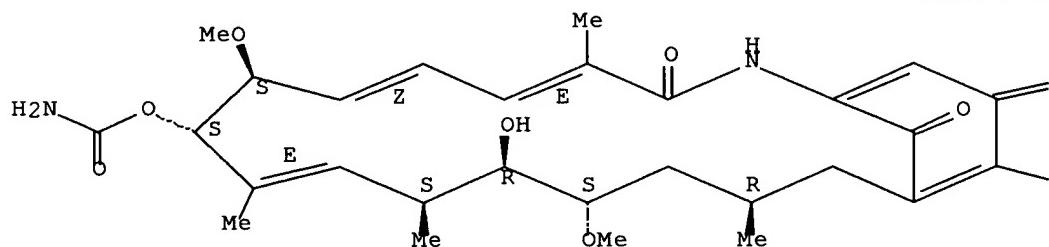
RN 280145-15-5 CAPLUS

CN Geldanamycin, 17,17'-(1,11-undecanediyldiimino)bis[17-demethoxy- (9CI)  
(CA INDEX NAME)

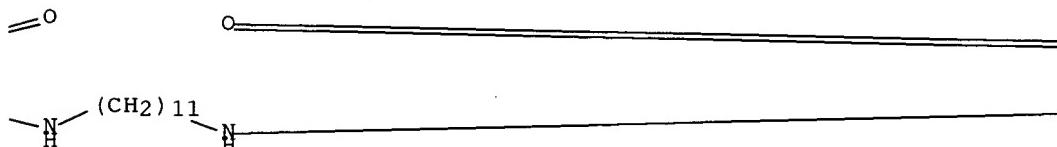
Absolute stereochemistry.

Double bond geometry as described by E or Z.

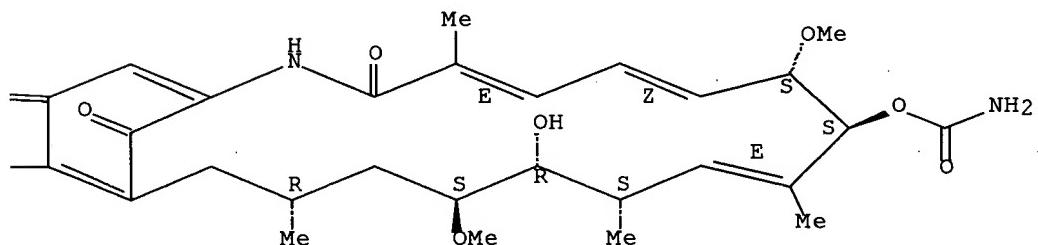
PAGE 1-A



PAGE 1-B



PAGE 1-C



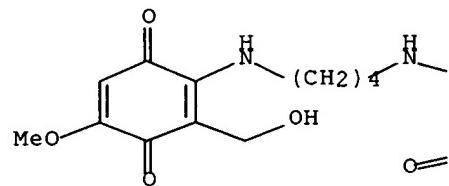
RN 280145-16-6 CAPLUS

CN Geldanamycin, 17-demethoxy-17-[[4-[[2-(hydroxymethyl)-4-methoxy-3,6-dioxo-1,4-cyclohexadien-1-yl]amino]butyl]amino]- (9CI) (CA INDEX NAME)

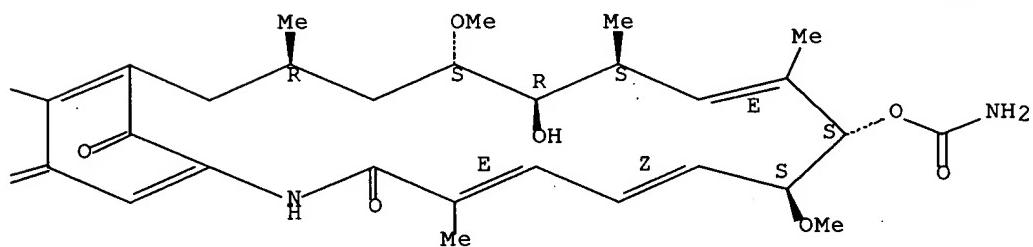
Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A



PAGE 1-B



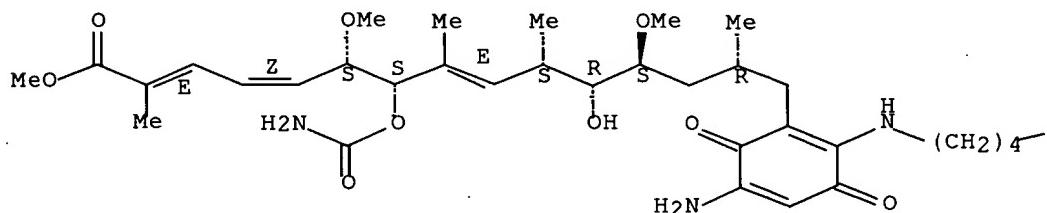
RN 280145-17-7 CAPLUS

CN Geldanamycin, 17-[[4-[[4-amino-2-[(2R,4S,5R,6S,7E,9S,10S,11Z,13E)-9-[(aminocarbonyl)oxy]-5-hydroxy-4,10,15-trimethoxy-2,6,8,14-tetramethyl-15-oxo-7,11,13-pentadecatrienyl]-3,6-dioxo-1,4-cyclohexadien-1-yl]amino]butyl]amino]-17-demethoxy- (9CI) (CA INDEX NAME)

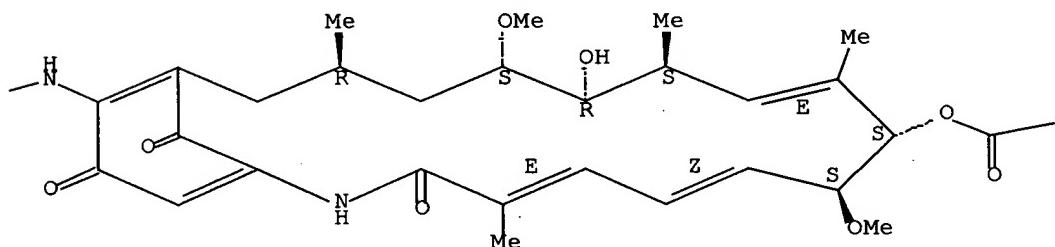
Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A



PAGE 1-B



PAGE 1-C

—NH<sub>2</sub>

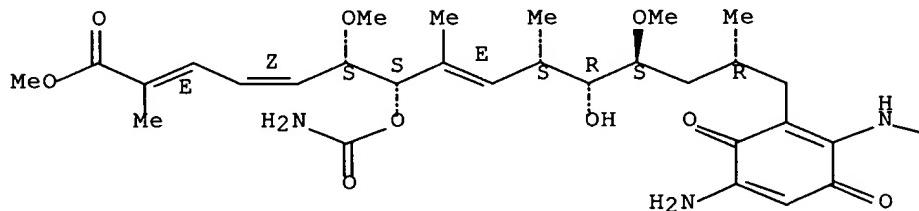
RN 280145-18-8 CAPLUS

CN 2,4,8-Pentadecatrienoic acid, 15,15'-[1,4-butanediylbis[imino(5-amino-3,6-dioxo-1,4-cyclohexadiene-2,1-diyl)]]bis[7-[(aminocarbonyl)oxy]-11-hydroxy-6,12-dimethoxy-2,8,10,14-tetramethyl-, dimethyl ester,  
(2E,2'E,4Z,4'Z,6S,6'S,7S,7'S,8E,8'E,10S,10'S,11R,11'R,12S,12'S,14R,14'R)-  
(9CI) (CA INDEX NAME)

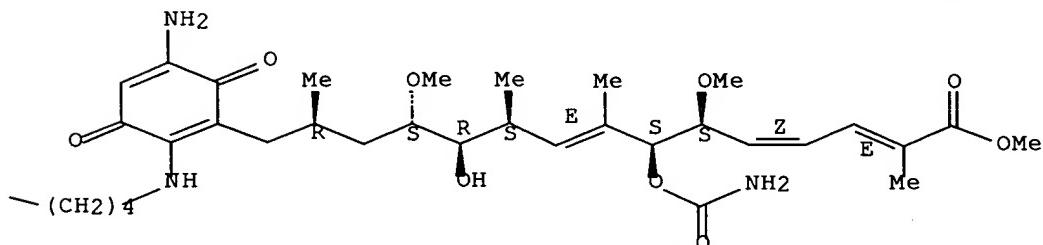
Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



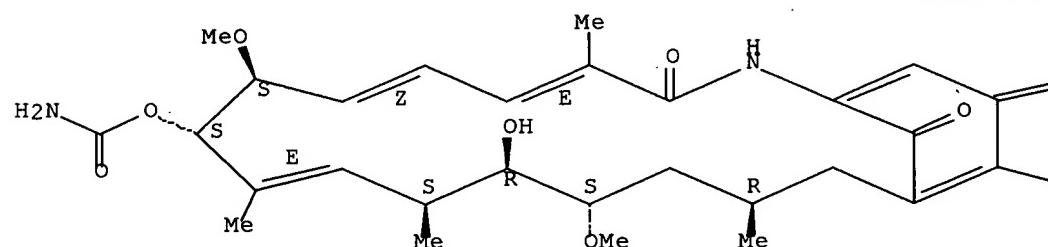
RN 301643-24-3 CAPLUS

CN Geldanamycin, 17,17'-(1,12-dodecanediylidimino)bis[17-demethoxy- (9CI)  
(CA INDEX NAME)

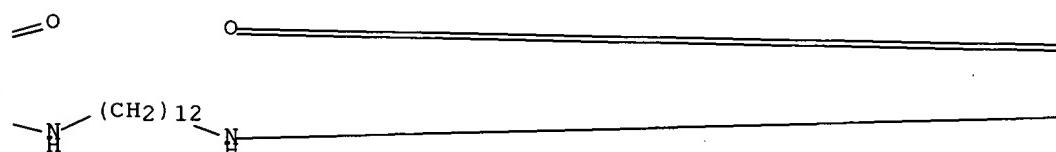
Absolute stereochemistry.

Double bond geometry as described by E or Z.

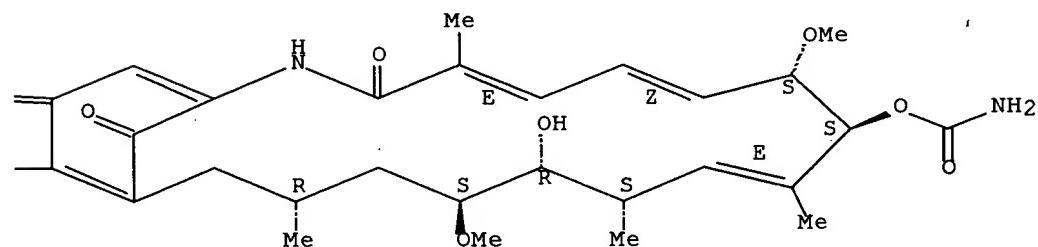
PAGE 1-A



PAGE 1-B



PAGE 1-C



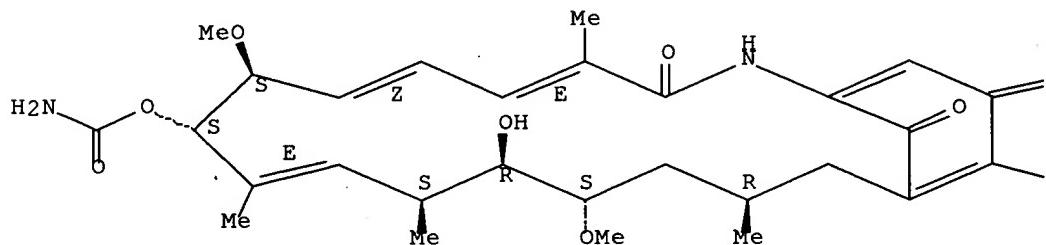
RN 301643-25-4 CAPLUS

CN Geldanamycin, 17,17'-(1,5-pentanediyldiimino)bis[17-demethoxy- (9CI) (CA INDEX NAME)

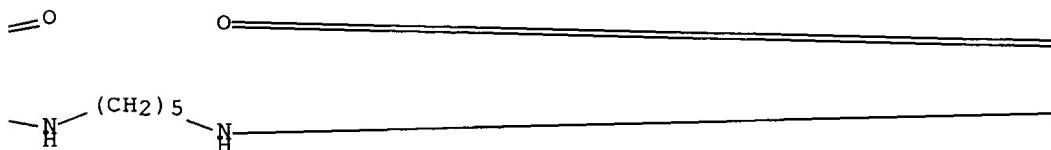
Absolute stereochemistry.

Double bond geometry as described by E or Z.

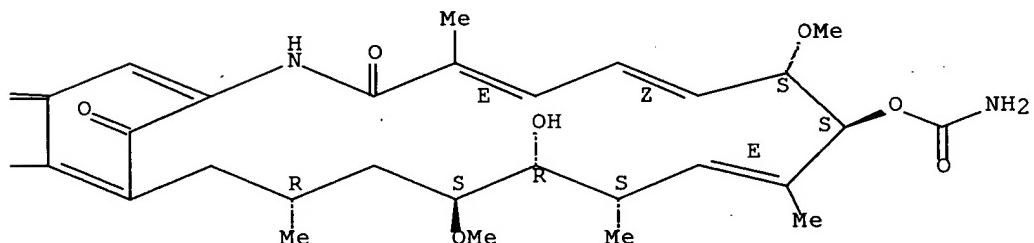
PAGE 1-A



PAGE 1-B



PAGE 1-C



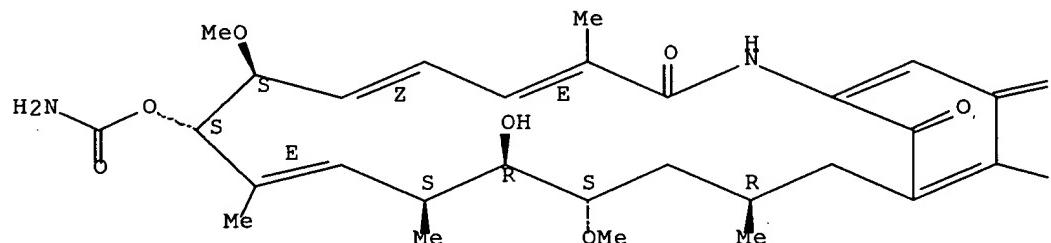
RN 301643-26-5 CAPLUS

CN Geldanamycin, 17,17'-(1,6-hexanediyldiimino)bis[17-demethoxy- (9CI) (CA INDEX NAME)

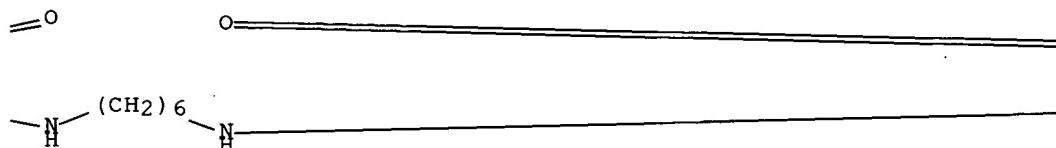
Absolute stereochemistry.

Double bond geometry as described by E or Z.

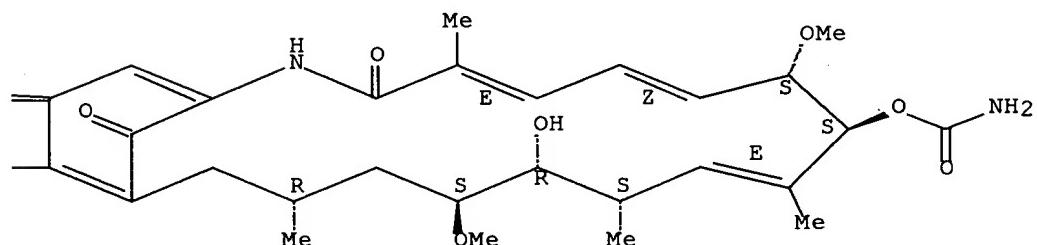
PAGE 1-A



PAGE 1-B



PAGE 1-C



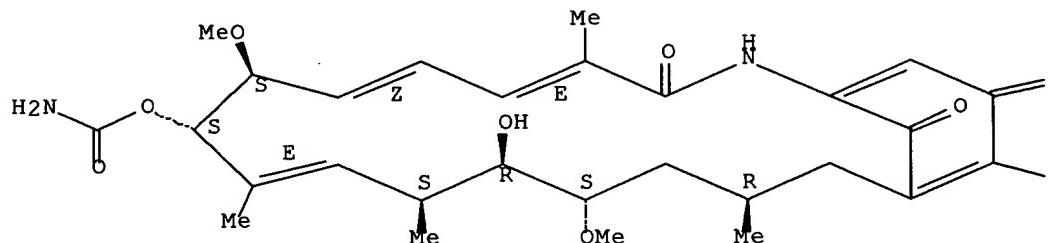
RN 301643-27-6 CAPLUS

CN Geldanamycin, 17,17'-(1,8-octanediyldiimino)bis[17-demethoxy- (9CI) (CA INDEX NAME)

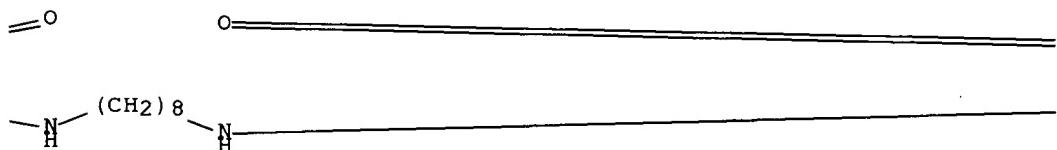
Absolute stereochemistry.

Double bond geometry as described by E or Z.

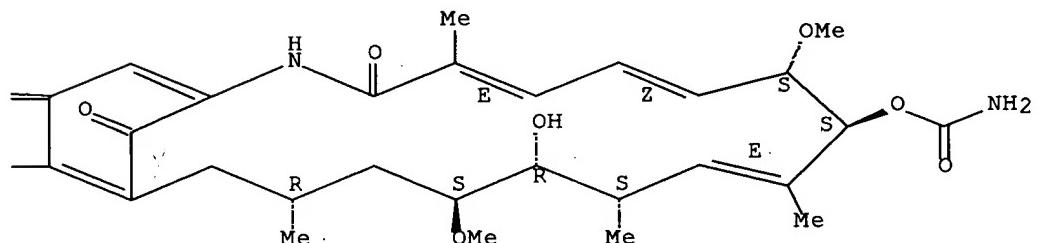
PAGE 1-A



PAGE 1-B



PAGE 1-C



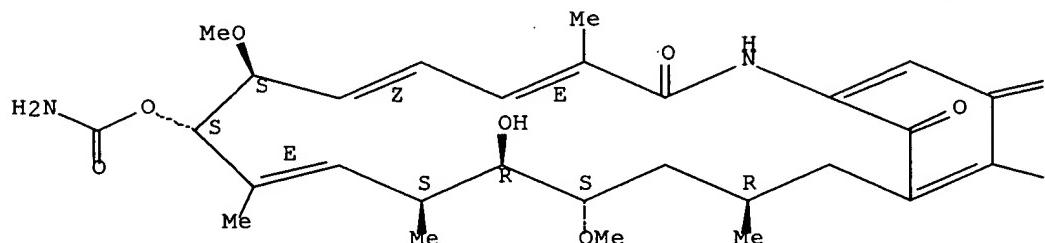
RN 301643-28-7 CAPLUS

CN Geldanamycin, 17,17'-(1,10-decanediylidimino)bis[17-demethoxy- (9CI) (CA INDEX NAME)

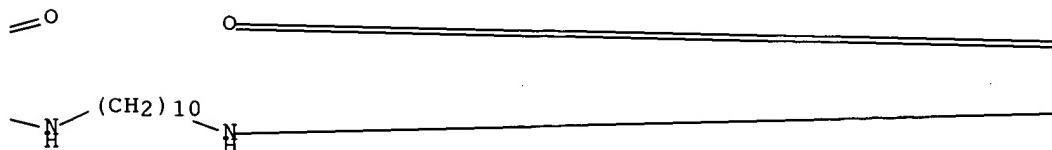
Absolute stereochemistry.

Double bond geometry as described by E or Z.

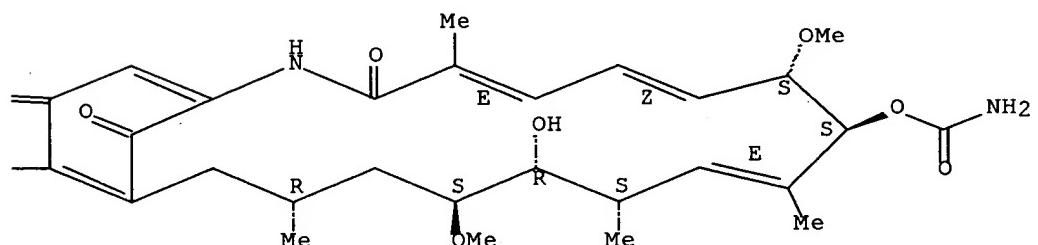
PAGE 1-A



PAGE 1-B



PAGE 1-C



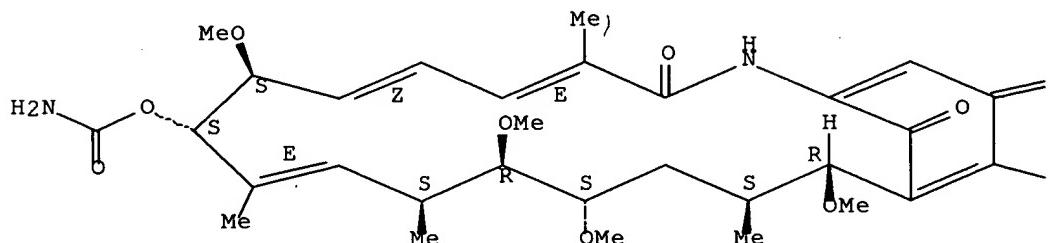
RN 301643-29-8 CAPLUS

CN Geldanamycin, 17,17'-(1,6-hexanediyldiimino)bis[17-demethoxy-,  
15-methoxy-11-O-methyl deriv., (15R)- (9CI) (CA INDEX NAME)

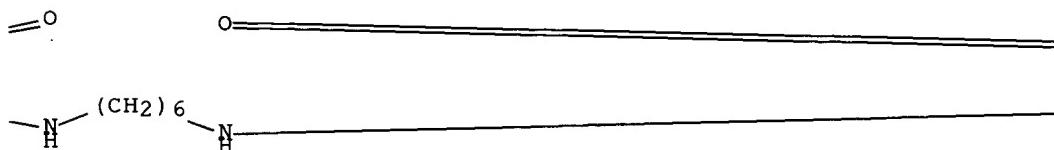
Absolute stereochemistry.

Double bond geometry as described by E or Z.

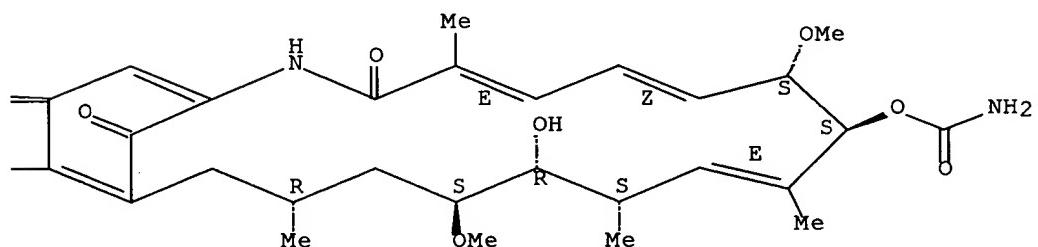
PAGE 1-A



PAGE 1-B



PAGE 1-C



IT 30562-34-6D, Geldanamycin, linked derivs.

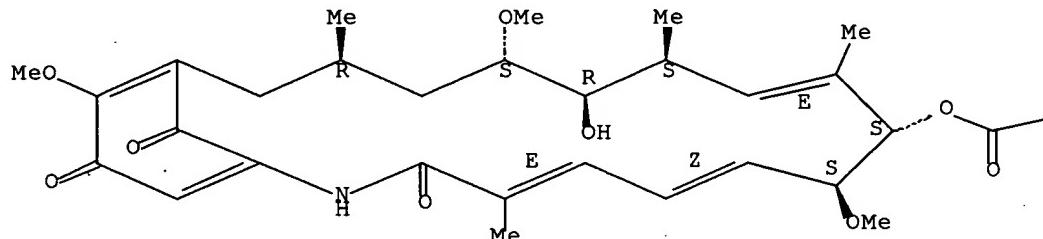
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (bifunctional hsp-binding derivative for degradation and/or inhibition of HER-family tyrosine kinase and cancer treatment)

RN 30562-34-6 CAPLUS

CN Geldanamycin (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
Double bond geometry as described by E or Z.

PAGE 1-A



PAGE 1-B

—NH<sub>2</sub>

IT 137632-09-8, HER-2 kinase 139691-76-2, Raf-1 kinase  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(bifunctional hsp-binding derivative for degradation and/or inhibition of  
HER-family tyrosine kinase and cancer treatment)  
RN 137632-09-8 CAPLUS  
CN Kinase (phosphorylating), protein p185neu (9CI) (CA INDEX NAME)

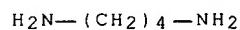
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 139691-76-2 CAPLUS  
CN Kinase (phosphorylating), gene raf-1 protein (9CI) (CA INDEX NAME)

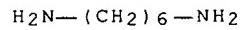
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 110-60-1, 1,4-Butanediamine 124-09-4, 1,6-Hexanediamine,  
reactions 373-44-4, 1,8-Octanediamine 462-94-2,  
1,5-Pentanediamine 646-19-5, 1,7-Heptanediamine 646-24-2  
, 1,9-Nonanediamine 646-25-3, 1,10-Decanediamine  
822-08-2, 1,11-Undecanediamine 2783-17-7,  
1,12-Dodecanediamine 70563-58-5, Herbimycin A  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction; bifunctional hsp-binding derivative for degradation and/or  
inhibition of HER-family tyrosine kinase and cancer treatment)

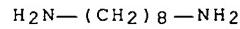
RN 110-60-1 CAPLUS  
CN 1,4-Butanediamine (8CI, 9CI) (CA INDEX NAME)



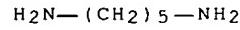
RN 124-09-4 CAPLUS  
CN 1,6-Hexanediamine (7CI, 8CI, 9CI) (CA INDEX NAME)



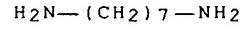
RN 373-44-4 CAPLUS  
CN 1,8-Octanediamine (6CI, 8CI, 9CI) (CA INDEX NAME)



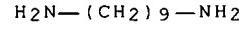
RN 462-94-2 CAPLUS  
CN 1,5-Pentanediamine (8CI, 9CI) (CA INDEX NAME)



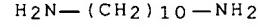
RN 646-19-5 CAPLUS  
CN 1,7-Heptanediamine (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



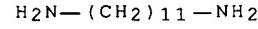
RN 646-24-2 CAPLUS  
CN 1,9-Nonanediamine (6CI, 8CI, 9CI) (CA INDEX NAME)



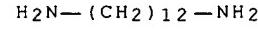
RN 646-25-3 CAPLUS  
CN 1,10-Decanediamine (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 822-08-2 CAPLUS  
CN 1,11-Undecanediamine (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



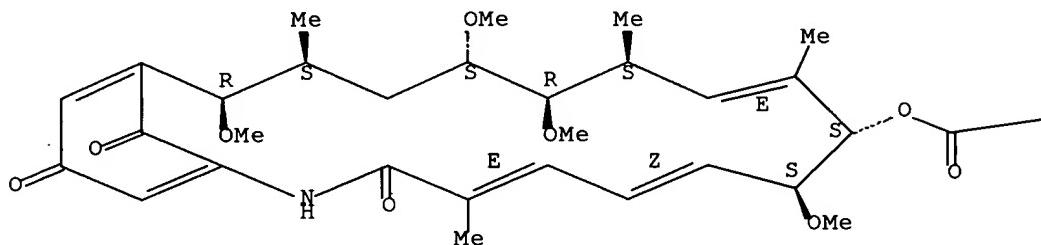
RN 2783-17-7 CAPLUS  
CN 1,12-Dodecanediamine (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 70563-58-5 CAPLUS  
CN Geldanamycin, 17-demethoxy-15-methoxy-11-O-methyl-, (15R)- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry. Rotation (+).  
Double bond geometry as described by E or Z.

PAGE 1-A



PAGE 1-B

—NH<sub>2</sub>

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT